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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/604,392	07/17/2003	Chung-Yen Chou	10606-US-PA	1391

31561 7590 06/28/2005

JIANQ CHYUN INTELLECTUAL PROPERTY OFFICE  
7 FLOOR-1, NO. 100  
ROOSEVELT ROAD, SECTION 2  
TAIPEI, 100  
TAIWAN

EXAMINER

LUND, JEFFRIE ROBERT

ART UNIT	PAPER NUMBER
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1763

DATE MAILED: 06/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/604,392

Applicant(s)

CHOU ET AL.

Examiner

Jeffrie R. Lund

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 02 June 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### DETAILED ACTION

1. Applicant's election without traverse of Group I, claims 1-11 in the reply filed on June 2, 2005 is acknowledged.

#### ***Specification***

2. The use of the trademark Teflon™ has been noted in this application. It should be capitalized wherever it appears and be accompanied by the generic terminology.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

#### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 9 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 9 contains the trademark/trade name Teflon™. Where a trademark or trade name is used in a claim as a limitation to identify or describe a particular material or product, the claim does not comply with the requirements of 35 U.S.C. 112, second paragraph. See *Ex parte Simpson*, 218 USPQ 1020 (Bd. App. 1982). The claim scope is uncertain since the trademark or trade name cannot be used properly to identify any particular material or product. A trademark or trade name is used to identify a source of goods, and not the goods themselves. Thus, a trademark or trade name does not

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identify or describe the goods associated with the trademark or trade name. In the present case, the trademark/trade name is used to identify/describe an O-ring made of polytetrafluoroethylene and, accordingly, the identification/description is indefinite.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1, 5, 10 and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Arami et al, US Patent 5,958,140.

Arami et al teaches a processing apparatus that includes: a main gas distributing conduit branching out into a first distributing conduit with a first control valve 44A and a second distributing conduit with a second control valve 44B; a top plate having a first nozzle in a central region 37A connected to the first distributing conduit and a second nozzle in a peripheral region 37C connected to the second distributing conduit; a gas barrier 36A, 36B between the first nozzle and second nozzle; and an upper electrode panel gas distributor having a first set of holes through which the gas from the first gas nozzle passes, and a second set of holes through which the gas from the second gas nozzle passes. The first set and second set of holes are evenly spaced. (Figure 2)

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7. Claims 1, 5, 10 and 11 are rejected under 35 U.S.C. 102(e) as being anticipated by Yagi et al, US Patent 6,473,993 B1.

Yagi et al teaches a processing apparatus that includes: a main gas distributing conduit 44 branching out into a first distributing conduit 45 with a first control valve V1 and a second distributing conduit 46 with a second control valve V2; a top plate having a first nozzle in a central region 51 connected to the first distributing conduit 45 and a second nozzle in a peripheral region 52 connected to the second distributing conduit 46; a gas barrier between the first nozzle and second nozzle; and an upper electrode panel gas distributor 41 having a first set of holes 42 through which the gas from the first gas nozzle passes, and a second set of holes 42 through which the gas from the second gas nozzle passes. The first set and second set of holes are evenly spaced. (Entire document)

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 2-4, and 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yagi et al, US Patent 6, 473,993 B1 in view of Gill, US Patent 6,314,991 B1, and Roithner et al, US Patent 6,294,026 B1.

Yagi et al was discussed above.

Yagi et al differs from the present invention in that Yagi et al does not teach: a

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controlling the control valves, the specific control type of control valve, i.e. a thermal mass flow controller having a heated coil gas flow detector, or a manual valve; or that the gas barrier is an O-ring made from an elastic, and corrosion-resistant material.

Gill teaches a thermal mass flow controller with flow detector having headed coils (Figure 5, column 5 line 57 through column 6 line 31)

Manual valves are well known in the art.

Roithner et al teaches a processing system that includes a controller 46 that controls a plurality of mass flow controllers 42 to maintain the proper concentration and flow of process gases, and an upper gas electrode panel gas distributor 24 that has a rubber (an elastic, and corrosion-resistant material) O-ring 32. (Entire document)

The motivation for replacing the generic control valve of Yagi et al with either the mass flow controller of Gill or a manual valve is to provide a specific control valve as required by Yagi et al but only generically described by Yagi et al.

The motivation for adding the controller of Roithner et al to the apparatus of Yagi et al is to provide a means of controlling the mass flow controllers of Yagi et al and Gill as taught by Roithner et al.

The motivation for replacing the generic gas barrier of Yagi et al with an O-ring as taught by Roithner et al is to provide a specific gas barrier as required by Yagi et al but only generically described by Yagi et al.

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to replace the control valve with a thermal mass controller as taught by Gill or with a manual valve, control the mass flow controller with a controller

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as taught by Roithner et al, and to replace the gas barrier of Yagi et al with a rubber O-ring as taught by Roithner et al.

10. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yagi et al, Gill, and Roithner et al as applied to claims 2-4, and 6-8 above, and further in view of Nozawa et al, US Patent 5,290,381.

Yagi et al, Gill, and Roithner et al differ from the present invention in that they do not teach that the O-ring is made of Teflon™.

Nozawa et al teaches an O-ring made from Teflon™. (Column 4 lines 56-57, and column 5 lines 11-12)

The motivation for making the O-ring of Yagi et al, Gill, and Roithner et al out of Teflon™ is to provide an alternate and equivalent material of construction as taught by Nozawa et al. Teflon™ and rubber are both well known in the art and commonly used materials of construction for O-rings.

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to make the O-ring of Yagi et al, Gill, and Roithner et al out of Teflon™ as taught by Nozawa et al.

### ***Conclusion***

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The cited art teaches the technological background of the invention.

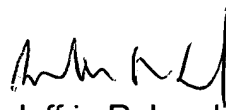
12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrie R. Lund whose telephone number is (571) 272-

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1437. The examiner can normally be reached on Monday-Thursday (6:30 am-6:00pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Parviz Hassanzadeh can be reached on (571) 272-1435. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC), at 866-217-9197 (toll-free).

  
Jeffrie R. Lund  
Primary Examiner  
Art Unit 1763

JRL  
6/24/05